REMARKS

The present application includes pending claims 1-7 and 9-23, all of which have been rejected. The Applicants respectfully submit that the pending claims define patentable subject matter.

Claims 1-4, 10-12, 15-18 and 22 stand rejected under 35 U.S.C. 102(e) as being anticipated by U.S. 2005/0095993 ("Kim"). Claim 13 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Kim. Claims 6-7 and 20-21 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Kim in view of U.S. 6,603,810 ("Bednekoff"). Claims 5, 9 and 19 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Kim in view of U.S. 6,704,352 ("Johnson"). Claim 14 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Kim in view of U.S. 6,801,788 ("Csapo"). The Applicants respectfully traverse these rejections for at least the following reasons:

I. Kim Does Not Anticipate Claims 1-4, 10-12, 15-18 And 22

The Applicants first turn to the rejection of claims 1-4, 10-12, 15-18, and 22 as being anticipated by Kim. Kim "relates generally to wireless communication systems and more particularly to radio frequency integrated circuits and radio frequency printed circuit boards used in such wireless communication systems." Kim at [0003]. More specifically, Kim discloses a "method for determining attenuation of a transmit/receive switch," and a "method for attenuating high powered inbound RF signals." *See id.* at [0012]-[0013].

A. Kim Does Not Anticipate Claim 1

Claim 1 recites, in part, "adjusting the operation of the receiver portion based upon the first signal power measurement and the second signal power measurement, wherein the adjusting

comprises modifying at least one threshold related to the processing of receive signal strength indicator data used in the operation of the radio frequency communication system ."

Kim, on the other hand, discloses the following:

> The RSSI module 87 measures the signal strength of the test RF signal 100, anywhere along the receive path, with the T/R switch module 73 in the receiver attenuation mode to produce a 2nd signal strength. The digital receiver processing module 64 compares the 1st signal strength value when the T/R switch module is in the receive mode (i.e., without receiver attenuation) to the 2nd signal strength when the T/R switch module 73 is in the transmit mode (i.e., with receiver attenuation). Based on these values, the digital receiver processing module 64 can readily determine the attenuation provided by the T/R switch module 73 when in the receiver attenuation mode. Based on this value, the receiver signal processing module 64, as inbound RF signals are being received, can trigger the T/R switch attenuation mode such that the receiver section is not saturated.

Id. at [0039]. **Thus, Kim discloses that the T/R switch attenuation mode is triggered based on attenuation provided by the T/R switch that is determined through a comparison of 1st and 2nd signal strengths.** Kim does not describe, teach, or suggest, however, "adjusting the operation of the receiver portion based upon the first signal power measurement and the second signal power measurement, **wherein the adjusting comprises modifying at least one threshold related to the processing of receive signal strength indicator data used in the operation of the radio frequency communication system,**" as recited in claim 1. Thus, for at least these reasons, Kim does not anticipate claim 1, or the claims that depend from claim 1.

The Office Action cites Kim at [0044] as disclosing "wherein the adjusting comprising modifying at least one threshold related to the processing of receive signal strength indicator data used in the operation of the radio frequency communication system." *See* July 6, 2007 Office Action at pages 2 and 4. Indeed, the Office Action states the following:

> In paragraph 0043, Kim discloses the attenuation of the receive/transmit switch is determined based up the first signal power measurement and the second signal power measurement (Fig. 6). It is a setup process that may be done periodically during operation of the radio and/or upon environmental changes. Then Kim discloses in paragraph 0044 taking another measured receive signal strength to compare with a high powered signal strength threshold (Fig. 7) in order to determine the enablement of attenuation mode, wherein the high powered signal threshold is *based on the attenuation of the transmit/receive switch* and a maximum input power level.

See July 6, 2007 Office Action at page 2 (emphasis in original). Thus, the Office Action relies on paragraphs [0043] and [0044] of Kim as disclosing "adjusting the operation of the receiver portion based upon the first signal power measurement and the second signal power measurement, **wherein the adjusting comprises modifying at least one threshold related to the processing of receive signal strength indicator data used in the operation of the radio frequency communication system,**" as recited in claim 1.

Paragraph [0043], however, states the following:

> The process then proceeds to Step 118 where the transmit section provides the test radio frequency signal to the receive section via the transmit/receive switch in the receive attenuation mode to produce an attenuated test radio frequency signal. The process then proceeds to Step 120 where the receive section measures signal strength of the attenuated test radio frequency signal to produce a 2 [sic] signal strength. The process then proceeds to Step 122 where the 1st signal strength is compared with the 2nd signal strength to determine the attenuation of the receive/transmit switch. As one of average skilled in the art will appreciate, the processing of FIG. 6 may be done at set up, periodically during operation of the radio, and/or upon environmental changes.

Kim at [0043]. This paragraph discloses that the transmit section provides a test signal to the receive section. The receive section then measures the signal strength. First and second signal strengths are then compared to determine the attenuation of the switch. There is nothing in this

portion, or the remainder of Kim, however, that describes, teaches, or suggests "adjusting the operation of the receiver portion based upon the first signal power measurement and the second signal power measurement, **wherein the adjusting comprises modifying at least one threshold related to the processing of receive signal strength indicator data used in the operation of the radio frequency communication system,**" as recited in claim 1.

Next, paragraph [0044] of Kim states the following:

> FIG. 7 is a logic diagram of a method for attenuating high powered inbound radio frequency signals. **The process begins at Step 130 where attenuation of the transmit/receive switch is determined. This may be done as previously described with reference to FIG. 6.** The process then proceeds to Step 132 where the signal strength of an inbound RF signal is measured to produce a measured signal strength. The process then proceeds to Step 134 where the measured signal strength is compared with a high powered signal strength threshold. **The high powered signal strength threshold is based on the attenuation of the transmit/receive switch and a maximum input power level.** For example, if the maximum input power level is +dBm and the attenuation of the transmit/receive switch is -25dBm, the high powered signal strength threshold would be -15dBm.

Id. at [0044] (emphasis added). As discussed with respect to Figure 6, first and second signal strengths are compared to determine the attenuation of the switch. *See* Kim at [0043]. Note, however, that Kim specifically states that the threshold is based on the attenuation of the T/R switch and a maximum input power level. This portion of Kim, in conjunction with paragraph [0043], does not describe, teach, or suggest, however, that **operation of the receiver is adjusted by "modifying at least one threshold related to the processing of receive signal strength indicator data used in the operation of the radio frequency communication system,"** as recited in claim 1, as amended. Instead, as clearly stated in Kim, the threshold is based on the attenuation of the T/R switch and a maximum input power level.

B. Kim Does Not Anticipate Claim 15

Claim 15 recites, in part, "the radio frequency communication system adjusting at least one characteristic of the receive signal strength indicator using the switching circuitry **and the transmitter circuitry**." Kim, on the other hand, discloses a receiver signal processing module that triggers a T/R switch attenuation mode with respect to a receiver section. *See id.* at [0039] ("Based on this value, the receiver signal processing module 64, as inbound RF signals are being received, can trigger the T/R switch attenuation mode such that the receiver section is not saturated.").

The Office Action states the following:

> In Fig. 6 and paragraphs 0040-0043, Kim discloses that switching circuit, transmit section, and receive section are involved in testing and configuration, where two different receive signal strengths are resulted. As receive attenuation mode is enabled, receive signal strength is changed/adjusted.

See July 6, 2007 Office Action at pages 2-3. The Applicants respectfully disagree for at least the following reasons:

The Office Action cites Kim at [0040] – [0043] as disclosing the limitations of claim 15 noted above. *See* July 6, 2007 Office Action at pages 2-4. Paragraph [0040] of Kim states, however, the following:

> FIG. 6 is a logic diagram of a method for determining attenuation of a transmit/receive switch for attenuating inbound RF signals. The process begins at Step 110 where the transmit/receive switch is enabled to provide a loop back configuration between the transmitter section and receiver section of the radio. This may be done by enabling both the transmit switch and receive switch of the transmit/receive switch. The process then proceeds to Step 112 where the transmit section provides a test radio frequency signal to the receive section.

This paragraph of Kim merely discloses a method of determining attenuation of a T/R switch in which both the transmit switch and receive switch are enabled. It does not, however, describe, teach, or suggest "the radio frequency communication system **adjusting at least one characteristic of the receive signal strength indicator** using the switching circuitry **and the transmitter circuitry**," as recited in claim 15.

Next, paragraph [0041] of Kim states the following:

> The process then proceeds to Step 114 where the receive section measures the signal strength of the test radio frequency signal to produce a 1st signal strength. This may be done by measuring the magnitude of the test radio frequency signal, squaring the magnitude, determining a power level based on the squared magnitude and then equating the power level to a received signal strength indication. As one of average skill in the art will appreciate, the signal strength of the test signal may be done on the in-phase signal components of the RF signal as well as the quadrature components of the RF signal.

This paragraph discloses that the receive section measures the signal strength of a test RF signal to produce a 1st signal strength, but it does not describe, teach, or suggest "the radio frequency communication system **adjusting at least one characteristic of the receive signal strength indicator** using the switching circuitry **and the transmitter circuitry**," as recited in claim 15.

Moving on, paragraph [0042] recites the following:

> The process then proceeds to Step 116 where the receive attenuation mode of the transmit switch is enabled. This may be done by enabling the transmit switch of the transmit/receive switch and disabling the receive switch of the transmit/receive switch, where in parasitic components of the receive switch provide attenuation of the test radio frequency signal to the receive section.

While this paragraph discloses enabling a receive attenuation mode of a transmit switch, it does not describe, teach or suggest "the radio frequency communication system **adjusting at least**

one characteristic of the receive signal strength indicator using the switching circuitry **and the transmitter circuitry**," as recited in claim 15.

Finally, paragraph [0043] of Kim states the following:

> The process then proceeds to Step 118 where the transmit section provides the test radio frequency signal to the receive section via the transmit/receive switch in the receive attenuation mode to produce an attenuated test radio frequency signal. The process then proceeds to Step 120 where the receive section measures signal strength of the attenuated test radio frequency signal to produce a 2 [sic] signal strength. The process then proceeds to Step 122 where the 1st signal strength is compared with the 2nd signal strength to determine the attenuation of the receive/transmit switch. As one of average skilled in the art will appreciate, the processing of FIG. 6 may be done at set up, periodically during operation of the radio, and/or upon environmental changes.

As discussed above, this paragraph discloses that the transmit section provides a test signal to the receive section. The receive section then measures the signal strength. First and second signal strengths are then compared to determine the attenuation of the switch. There is nothing in this portion, or the remainder of Kim, however, that describes, teaches, or suggests "the radio frequency communication system **adjusting at least one characteristic of the receive signal strength indicator** using the switching circuitry **and the transmitter circuitry**," as recited in claim 15. Thus, for at least these reasons, Kim does not anticipate claim 15, or the claims that depend therefrom.

II. The Remaining Claims Are In Condition For Allowance

Kim does not render claim 13 unpatentable for at least the reasons discussed above with respect to claim 1.

The proposed combination of Kim and Bednekoff, Johnson, or Csapo does not render claims 5-7, 9, 14, and 19-21 unpatentable for at least the reasons discussed above.

Claim 23 recites, in part, "the radio frequency communication system **adjusting at least one characteristic of the receive signal strength indicator** using the switching circuitry **and the transmitter circuitry.**" Thus, claim 23 should be in condition for allowance for at least the reasons discussed above with respect to claim 15.

III. Conclusion

In general, the Office Action makes various statements regarding claims 1-23 and the cited references that are now moot in light of the above. Thus, the Applicants will not address such statements at the present time. However, the Applicants expressly reserve the right to challenge such statements in the future should the need arise (e.g., if such statement should become relevant by appearing in a rejection of any current or future claim or in an Examiner's Answer to an Appeal Brief).

The Applicants respectfully submit that the Office Action has not established a *prima facie* case of anticipation or obviousness with respect to any of the pending claims for at least the reasons discussed above and request that the outstanding rejections be reconsidered and withdrawn. If the Examiner has any questions or the Applicants can be of any assistance, the Examiner is invited to contact the Applicants.

The Commissioner is authorized to charge any necessary fees, or credit any overpayment to the Deposit Account of McAndrews, Held & Malloy, Account No. 13-0017.

Respectfully submitted,

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